

VERIFICATION OF TRANSLATION

I undersigned, Mr. Norberto VESGA

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declare as follows:

1. That I am well acquainted with both the English and Spanish languages, and
2. That the attached document is a true and correct translation into English made by me to the best of my knowledge and belief of:

The Spanish Patent n° ES 200300775 filed on April 1, 2003

Barcelona, September 26, 2005

Signature of Translator:

A handwritten signature in black ink, appearing to read "Norberto Vesga". It is written in a cursive style with a long, sweeping flourish at the end.

10/551486

SPANISH PATENT AND TRADEMARK OFFICE

JC09 Rec'd PCT/PTO 29 SEP 2009

OFFICIAL CERTIFICATE

I hereby certify that the annexed documents are an exact copy of the PATENT OF INVENTION number 200300755, according to the grant issued on date April 1, 2003

Madrid, March 26, 2004

The Director of the Patents Department
and Technological Information

(signature)
CARMEN LENCE REIJA

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10/551486

JC09 Rec'd PCT/PTO 28 SEP 2005

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(9) TITLE OF THE INVENTION			
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DEVICE TO CARRY OUT PHYSICAL EXERCISES

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(14) THE APPLICANTS REQUEST THE EXEMPTION OF THE PAYMENT OF TAXES PROVIDED IN ART. 162 L.P.	<input type="checkbox"/> YES	<input type="checkbox"/> NO
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NOTIFICATION OF PAYMENT OF THE GRANT FEES		SIGNATURE OF THE APPLICANT OR REPRESENTATIVE Adelaida Ponti Sales Associate no. 320

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COMPLEMENTARY INFORMATION SHEET

- PATENT OF INVENTION
 UTILITY MODEL

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APPLICATION OF PATENT OF INVENTION

NUMBER	PRIORITY PARTICULARS	
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INT. CL	GRAPHIC	
TITLE OF THE INVENTION DEVICE TO CARRY OUT PHYSICAL EXERCISES		
ABSTRACT DEVICE TO CARRY OUT PHYSICAL EXERCISES. Device to carry out physical exercise, which comprises a support (1) and an inflatable flexible element (3), which is characterised in that each of the upper and lower sides of said support (1) comprise a housing (2), said inflatable flexible element (3) being detachable mounted in the housing (2) of one of the sides and in that it comprises a contact platform (4) disposed in the housing (2) of the other side. Thanks to these features, the device of the present invention is reversible y permits to work on the areas of aerobic, cardio, balance, proprioception and coordination, together or separately.		

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ABSTRACT AND GRAPHIC

ABSTRACT

DEVICE TO CARRY OUT PHYSICAL EXERCISES

Device to carry out physical exercise, which comprises a support (1) and an inflatable flexible element (3), which is characterised in that each of the upper and lower sides of said support (1) comprise a housing (2), said inflatable flexible element (3) being detachable mounted in the housing (2) of one of the sides and in that it comprises a contact platform (4) disposed in the housing (2) of the other side. Thanks to these features, the device of the present invention is reversible y permits to work on the areas of aerobic, cardio, balance, proprioception and coordination, together or separately.

DEVICE TO CARRY OUT PHYSICAL EXERCISE

This invention refers to a device that allows users to carry out exercises to improve their physical condition, training and rehabilitation, which specifically works the areas dedicated to aerobic, cardio, balance, proprioception and coordination.

BACKGROUND OF THE INVENTION

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There are devices that allow users to carry out physical exercises that comprise a plastic support with a flat side for aerobic and cardio exercises. Said devices comprise a contact platform or an element made of plastic material on the side on which said exercises are carried out. The height of the device is adjusted using supplements that are added on the base of the support.

There are devices that allow users to carry out physical exercises that comprise an inflatable flexible element shaped like a ball to work balance and proprioception. Said devices present the inconvenience of being very unstable as well as the fact that users cannot do exercises standing up.

There are also devices that allow users to carry out physical exercises that comprise an inflatable flexible element but present the inconvenience that they are always auxiliary to other devices, and do not allow users to work balance in an integral manner.

US 6422983 describes an inflatable device that can be used for physical therapy, conditioning or training. Said device has a double-sided support platform, a flexible element attached to one side of said platform and a clamp that attaches said flexible element to the platform. The flexible element has a semi-spherical shape when inflated, before its use. The pressure of the

inflatable element can be modified, when users wish to modify the stability, by means of a small valve located on said device.

Said device can be used face up or face down to 5 carry out physical exercises. In the latter case, the user stands on the side of the platform that does not have the inflatable flexible element attached.

The device disclosed in the American patent presents the inconvenience that because it is of a semi-10 spherical shape, over 20 cm high, the device works on the users' balance in a very unstable manner. The semi-spherical shape confers the device a very small support surface that is extremely unstable, increasing the risk of injuries and making it difficult for users to perform 15 exercises laying down or leaning on the device. Furthermore, the circular shape of the platform makes pupils disoriented in physical exercises classes.

Another inconvenience included in the device disclosed in the American patent is that in order to 20 modify the stability of the inflatable flexible element the users must change the inner pressure, which is very impractical in many cases since it involves interrupting the physical exercise class.

There are no devices for carrying out physical 25 exercises that comprise a support made of plastic that is reversible, with adjustable height, with a flat side for working the physical condition in general and aerobic and cardio areas specifically, and another side that comprises an inflatable flexible element that allows users to carry 30 out exercises to improve balance, proprioception and co-ordination.

DESCRIPTION OF THE INVENTION

35 The object of this invention is to develop a

device to carry out physical exercises improving the physical condition in general and aerobic, cardio, balance, proprioception and co-ordination areas specifically. The device also solves the aforementioned 5 inconveniences and presents the advantages described hereunder.

In line with this objective, the device of the invention comprises a support which defines an upper side and lower side and an inflatable flexible element or the 10 like and is characterised in that in each of the upper and lower sides of said support comprise a housing, said inflatable flexible element being detachable mounted in the housing of one of the sides and in that it comprises a contact platform disposed in the housing of the other 15 side.

Thanks to these characteristics, the device of the invention is reversible and allows users to work on the areas of aerobic, cardio, balance, proprioception and coordination, together or separately, integrating a vast 20 range of exercises and functions in a single element.

Since the flexible element is detachable, it can be used individually and users can employ it upturned when carrying out physical exercises such as press ups or use it to lean their body on, etc. The stability of said 25 inflatable flexible element is variable as regards direction and strength for one same inflation pressure, since said element behaves differently when used individually and when used restricted in the housing located on one of the sides of the support. Thus, the 30 stability of the element can be adjusted without having to interrupt the class to inflate or deflate the device.

Preferably, the device of the present invention is characterised in that it comprises supporting bases and in that said supporting bases are rotatable about the support 35 and movable 180° about a rotating axis.

In view of these characteristics, the height of the device can be modified, allowing users to work with a varied range of levels of difficulty when carrying out exercises. Furthermore, the device can also be used 5 leaning it directly on either of the upper or lower sides of the support, because the supporting bases can be put opened outwardly, in the same plane than the support.

Preferably, said inflatable flexible element has a rectangular base.

10 Because the base is rectangular and not semi-spherical, the flexible element provides less instability when equilibrium exercises are done. The surface of utile support is greater than that of an flexible semi-spherical element, which facilitates the exercises, reduces the 15 injury risk and improves the supporting in laid down or resting exercises. With the inflatable flexible element of the present invention it can be done also light cardio exercises, besides of equilibrium exercises. The rectangular shape of the base helps users orient 20 themselves when compared to the same element with a circular shape base, since it avoids having to refer to other elements in the environment, which facilitates group exercises. Another advantage of the flexible element with a rectangular base, compared to the flexible element with 25 a circular base, is that its behaviour is marked by two symmetry axes, which implies two different instabilities in terms of the direction of use and support, instead of the same 360° instability.

Preferably, said contact platform is made of a 30 point-elastic material that has the capacity to absorb and restore energy. This allows for an optimal absorption and bounce, which results in safety and comfort when carrying out the physical exercises.

Preferably said inflatable flexible element 35 comprises the greater density area of the base, which

results in an area with the highest rigidity that avoids excessive or inconvenient deformation whilst exercises are carried out, and facilitates the restriction of said support element.

5 Optionally, said detachable inflatable flexible element comprises a platform joined to the base.

Advantageously, said support and flexible element comprise means to hold and handle them easily without having to hold them by the area that has been trodden on.

10 Advantageously, said inflatable flexible element comprises at least one valve to adjust the inner pressure.

BRIEF DESCRIPTION OF THE DRAWINGS

15 So as to enable a better understanding of the terms stated above, a series of drawings have been included to, schematically and illustratively, represent a practical case of the embodiment.

In said drawings,

20 Figure 1 shows an exploded view of the device of this invention.

Figure 2 is a view of the device presenting the side including the inflatable flexible element.

Figures 3 shows a view of the device of the
25 invention presenting the support bases in an open position, in parallel to the support.

Figure 4 is a view of the device of the invention presenting the side including the contact platform.

Figure 5 is a view of several devices such as the
30 one envisaged in this invention piled on top of each other.

DESCRIPTION OF ONE PREFERRED EMBODIMENT

35 Figures 1, 2 and 4 present a device of the

invention that comprises a support 1 made of blown plastic that defines an upper and lower side. Each side includes a housing 2. One of said housings 2 accommodates, vertically and detachably, an inflatable flexible element 3, whilst 5 the other accommodates a contact platform 4. The support 1 comprises support bases 5 located on the two lateral parallel sides. Both the support 1 and the support bases 5 comprise materials and/or anti-sliding elements (not shown) that help to keep the object in the same position 10 whilst it is being used.

The contact platform 4 has a flat side 6 for users to carry out aerobic and cardio exercises. Said platform is manufactured in a polymeric material which is foam Ethyl-Vinyl-Acetate-based, that is highly resistant and 15 created to absorb impacts. It is a synthetic point-elastic flooring that allows an excellent restitution of energy since it contains micro cellular closed cell foam.

The flexible element 3 is inserted vertically in the housing 2 of one of the sides of the support 1, where 20 it is sufficiently fixed for users to stand on the device without it moving. As can be observed, it is a rectangular base inflatable element, with rounded corners, sides perpendicular to the base and a dished upper side. The base can be thicker, with several handles shaped like 25 rebates and/or hollows that allow users to hold the flexible element 3 easily when using it individually. It can be used upturned for exercises such as press up or when users need to lean on it, etc.

The rectangular base of the flexible element 3 30 allows users to work on their balance without having to counter the instability the same element 3 would present with the circular base. Furthermore, the rectangular shape of the base, aids users' orientation, who do not have to refer to other elements in the environment (walls, lines, 35 etc.), thus facilitating group exercises.

As displayed in figure 3, the support bases 5 can rotate 180° around an axis located on one of the side, and parallel to the upper and lower sides, being able to present three different positions. Figure 3 presents the 5 bases 5 completely opened towards the outside, accommodated on either flank of the sides of the support 1. In this case, the device can be positioned directly on the floor, on the side comprising the platform 4, thus leaving it ready for use on the side that comprises the 10 flexible element 3, to carry out balance exercises. The support bases 5 can also be positioned on the side comprising the platform 4 (see figure 2), with which the device would be ready for use on the side comprising the flexible element 3, although, in this case, in a more 15 elevated position, thus allowing users to work on balance with a higher level of difficulty.

The support bases 5 can also be positioned on the side that comprises the flexible element 3; consequently the device is ready for use on the side that comprises the 20 platform 4 (see figure 4), in order to allow users to carry out aerobic and cardio exercises.

The fact that the bases 5 can be rotated allows users to adjust the height with which they use the device. This aspect, together with the fact that the flexible 25 element 3 is detachable, allows for the device to be used in a series of different manners:

1. Side of the support 1 on the flank comprising the platform 4, positioned on bases 5.
2. Side of the support 1 on the flank comprising 30 the platform 4, positioned directly on the opposite side for aerobic and cardio exercises, at a lower height.
3. Side of the support 1 on the flank comprising element 3, supported on the bases 5.
4. Side of the support 1 on the flank comprising 35 element 3, positioned directly on the opposed side, to do

equilibrium exercises to less height.

5. Flexible element 3 positioned upturned on the platform 4 of the device with the latter positioned directly on the floor.

5 6. Flexible element 3 positioned upturned on the platform 4 of the device with the latter positioned on the bases 5.

7. Flexible element 3 individually in an upright position.

10 8. Flexible element 3 individually in an upturned position.

9. Use of the device according to 1, combined with the use of the flexible element 3 individually, in an upright and upturned position.

15 10. Use of the device according to 2, with the use of the flexible element 3 individually, in an upright and upturned position.

The behaviour of the flexible element 3 can vary in terms of the direction and the strength for one same 20 inflation pressure, since it behaves differently when used individually and used accommodated in the support 1.

As deduced from the different uses set out in the previous paragraph, the device of the invention allows users to work on their physical condition in general, and 25 improve aerobic, cardio, balance, proprioception and coordination areas specifically, jointly and individually, at different heights, with one single element integrating a vast range of exercises and functions.

Another advantage of the device of the invention 30 is that it can be piled up easily, as displayed in figure 5.

Although this refers to one specific embodiment of the invention, obviously a person skilled in the art may introduce variations and modifications, or replace details 35 with others that are technically equivalent, without

departing from the scope of protection defined by the claims attached.

C L A I M S

1. Device to carry out physical exercise that comprises a support (1) which defines an upper side and a lower side, and an inflatable flexible element (3) on one of said sides, characterised in that each of the upper and lower sides of said support (1) comprise a housing (2), said inflatable flexible element (3) being detachable mounted in the housing (2) of one of the sides and in that it comprises a contact platform (4) disposed in the housing of the other side.

2. Device according to claim 1, characterised in that it comprises supporting bases (5) for the support (1).

3. Device according to claim 1, characterised in that said supporting bases (5) are rotatable about the support (1) and movable 180° about the rotating axis.

20 4. Device according to claim 1, characterised in that said inflatable flexible element (3) is of rectangular base.

25 5. Device according to claim 1, characterised in that said contact platform (4) is of a point-elastic material with absorption capacity and energy restitution.

30 6. Device according to claim 1, characterised in that said inflatable flexible element (3) comprises the greater density area of the base.

35 7. Device according to claim 1, characterised in that said flexible element (3) comprises a platform joined to the base.

8. Device according to claim 1, characterised in
that said support (1) comprises means to hold it and
handle it.

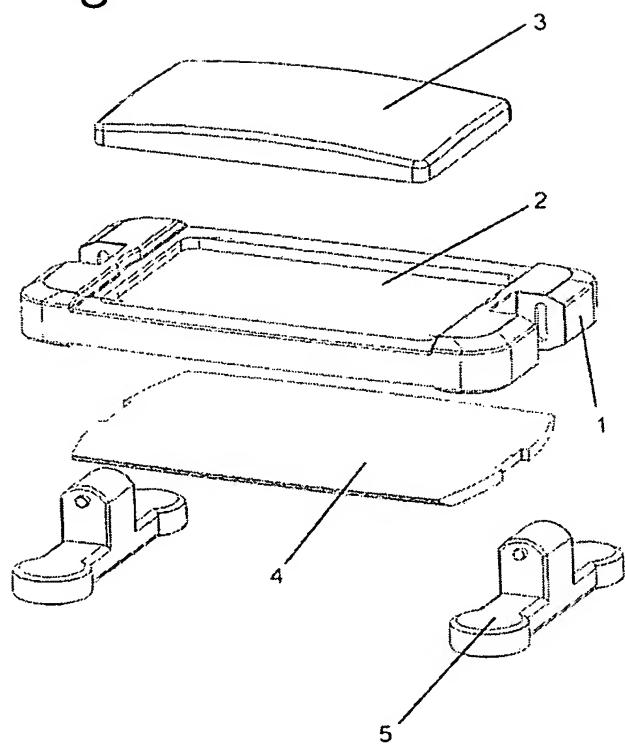
5

9. Device according to claim 1, characterised in
that said inflatable flexible element (3) comprises means
to hold it and handle it.

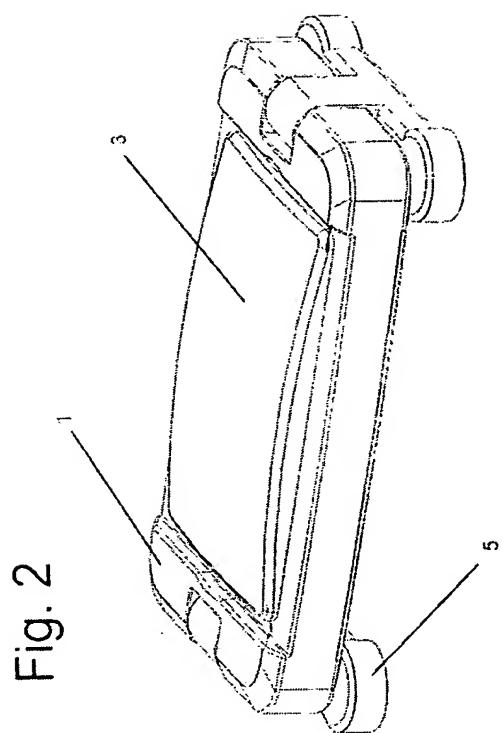
10 10. Device according to claim 1, characterised in
that said flexible element (3), that is inflatable,
comprises at least one valve that allows users to modify
the inner pressure.

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Fig. 1



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15

Fig. 3

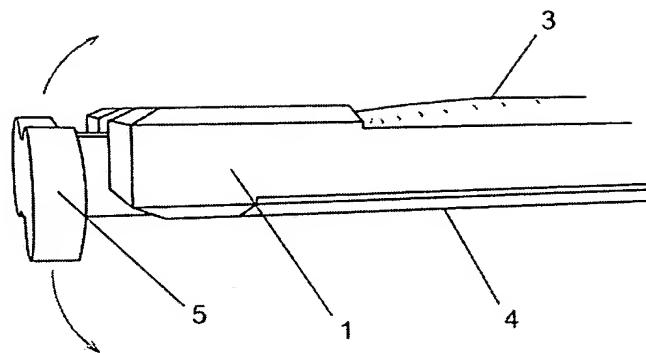
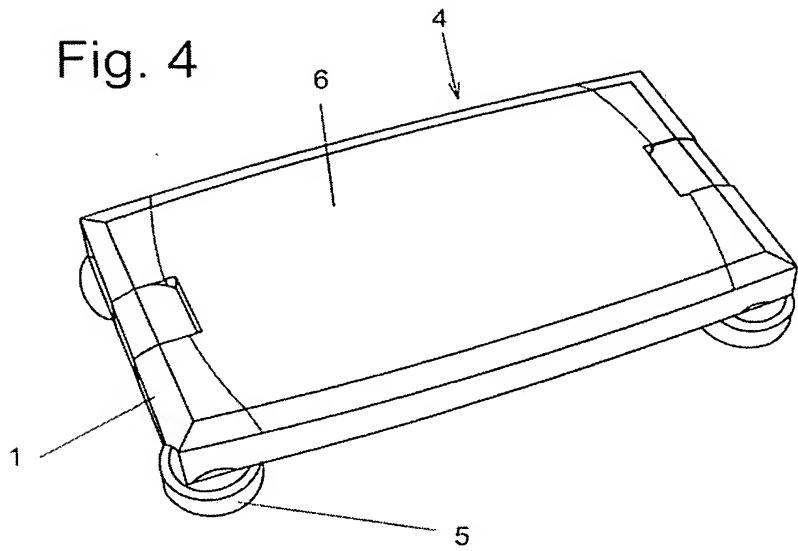


Fig. 4



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Fig. 5

